

selecting a 0 to 6 response. Responses are summed. Total summative scores run from 0 to 24. Level of fear is dichotomized on the median as low fear (summative scores 0 to 13) vs. high fear (summative scores 14 to 24). FABQ is only assessed in patients who have pain. So, if you want to risk-adjust on level of fear, assess whether the patient has pain.

8. Intake FS Measure: Only for predicting risk-adjusted discharge FS measure. The intake FS measure is entered from the Scoring Algorithm table. (Focus on Therapeutics, Inc., 2012).

Risk Adjustment Variables Used for U.K. PROM System

Factor Definition Coefficient Standard Error

Q1 score Patient's pre-operative questionnaire score 0.285 0.011

Q1 score (squared) Patient's pre-operative questionnaire score, squared -0.173 0.016

Age Patient's age 0.006 0.0009

Age (squared) Patient's age, squared 0.00004 0.000007

Sex: Female Takes value 1 if patient is female, 0 if not -0.017 0.002

Ethnicity: Asian Takes value 1 if patient is of Asian ethnicity, 0 if not -0.059 0.021

Ethnicity: Black Takes value 1 if patient is of Black ethnicity, 0 if not -0.056 0.017

Ethnicity: Not given Takes value 1 if patient's ethnicity is not given through HES, 0 if not 0.023 0.004

IMD (Deprivation) The IMD (Deprivation) 2004 score for the area the patient lives in -0.001 0.0001

Assisted at Q1 Takes value 1 if patient was assisted in completing preoperative questionnaire, 0 if not 0.013 0.003

Assisted at Q2 Takes value 1 if patient was assisted in completing postoperative questionnaire, 0 if not -0.098 0.005

Disabled at Q1 Takes value 1 if patient considers themselves to have a disability, 0 if not -0.066 0.002

HRG Code H80 Takes value 1 if the main HRG assigned to patient's spell was H80 (v3.5), 0 if not 0.056 0.025

HRG Code H81 Takes value 1 if the main HRG assigned to patient's spell was H81 (v3.5), 0 if not 0.065 0.025

Previous Surgery: Yes Takes value 1 if patient has had previous surgery on their hip, 0 if not - 0.037 0.006

PRC: High blood pressure Takes value 1 if patient has high blood pressure, 0 if not 0.017 0.004

PRC: Poor circulation Takes value 1 if patient has poor circulation, 0 if not -0.048 0.006

PRC: Diabetes Takes value 1 if patient has diabetes, 0 if not 0.021 0.006

PRC: Nervous system diseases Takes value 1 if patient has nervous system diseases, 0 if not - 0.050 0.013

PRC: Cancer Takes value 1 if patient has (had) cancer, 0 if not 0.020 0.006

PRC: Depression Takes value 1 if patient has depression, 0 if not -0.103 0.006

PRC: Arthritis Takes value 1 if patient has arthritis, 0 if not -0.015 0.003

Patient has 1 HESRC Takes value 1 if patient has one HES-reported comorbidity, 0 if not -0.023 0.003

Patient has 2 HESRC Takes value 1 if patient has two HES-reported comorbidities, 0 if not - 0.053 0.007

Patient has 3 HESRC Takes value 1 if patient has three or more HES-reported comorbidities, 0 if not -0.060 0.017

Patient has 2 PRCs Takes value 1 if patient has self-reported exactly two comorbidities, 0 if not - 0.027 0.005

Patient has 3 PRCs Takes value 1 if patient has self-reported exactly three comorbidities, 0 if not -0.047 0.008

Patient has 4 PRCs Takes value 1 if patient has self-reported four or more comorbidities, 0 if not -0.080 0.014

Symptom period (1-5 yrs) Takes value 1 if patient has experienced symptoms for between 1 and 5 years, 0 if not -0.012 0.003

Symptom period (6-10 yrs) Takes value 1 if patient has experienced symptoms for between 6 and 10 years, 0 if not -0.028 0.005

Symptom period (10+ yrs) Takes value 1 if patient has experienced symptoms for more than 10 years, 0 if not -0.027 0.005

Constant term 0.562 0.040

PRC = Patient Reported Comorbidity

HESRC = HES Reported Comorbidity

Patient Reported Outcome Measures (PROMs) in England: The case-mix adjustment methodology
Department of Health. 11 April 2012; accessed at:

<http://static.squarespace.com/static/509ad012e4b0592f670ebb81/t/5120d83ee4b02be7eddb7bb8/1361107006899/Risk%20Adjustment%20Considerations%20%E2%80%93%20PROMs%20.pdf>

Appendix B

Sample PRO Instruments

- **UCLA Activity Scale**
- **Revised FFI-R short form**

UCLA Activity Score

Hip ID:
Study Hip: Left Right
Examination Date (MM/DD/YY): / /
Subject Initials:
Medical Record Number:

Interval: _____

Check one box that best describes current activity level.

- 1: Wholly Inactive, dependent on others, and can not leave residence 2:

Mostly Inactive or restricted to minimum activities of daily living
- 3: Sometimes participates in mild activities, such as walking, limited housework and limited shopping 4: Regularly Participates in mild activities
- 5: Sometimes participates in moderate activities such as swimming or could do unlimited housework or shopping 6: Regularly participates in moderate activities
- 7: Regularly participates in active events such as bicycling
- 8: Regularly participates in active events, such as golf or bowling
- 9: Sometimes participates in impact sports such as jogging, tennis, skiing, acrobatics, ballet, heavy labor or backpacking 10: Regularly participates in impact sports

Revised FOOT FUNCTION INDEX (FFI-R) Short Form

Subject ID: [] [] [] [] [] []
 [Date: [] [] / [] [] / [] [] [] []]

PAIN

PLEASE READ BEFORE ANSWERING.

- Please circle the number that indicates how bad your foot pain was in each of the following situations during the past week.
- For example, when asked how severe your foot pain was at its worst, if you feel “No pain,” circle the number 1 and if you felt “Severe pain,” circle the number 4.
- If, for some items, the question does not apply, circle the number 5.
- Please provide an answer for every item.

1. DURING THE PAST WEEK, HOW SEVERE WAS YOUR FOOT PAIN:

	No Pain	Mild pain	Moderate pain	Severe pain
1. Before you get up in the morning?	1	2	3	4
2. When you first stood without shoes?	1	2	3	4
3. When you stood wearing shoes?	1	2	3	4
4. When you walked wearing shoes?	1	2	3	4
5. When you stood wearing custom shoe inserts? . .	1	2	3	4
6. When you walked wearing custom shoe inserts? .	1	2	3	4
7. At the end of a typical day?	1	2	3	4

5 = do not use
inserts
5 = do not use
inserts

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STIFFNESS

PLEASE READ BEFORE ANSWERING.

- Please circle the number that indicates how bad your foot stiffness was in each of the following situations during the past week.
- For example, when asked how severe your foot stiffness was at its worst, if you feel “No stiffness,” circle the number 1 and if you felt “Severe stiffness,” circle the number 4.
- If, for some items, the question does not apply, circle the number 5.
- Please provide an answer for every item.

1. DURING THE PAST WEEK, HOW SEVERE WAS YOUR FOOT STIFFNESS:

	No stiffness	Mild stiffness	Moderate stiffness	Severe stiffness
8. Before you get up in the morning?	1	2	3	4
9. When you stood without shoes?	1	2	3	4
10. When you walked without shoes?	1	2	3	4
11. When you stood wearing shoes?	1	2	3	4
12. When you walked wearing shoes?	1	2	3	4
13. When you walked wearing custom shoe inserts? .	1	2	3	4
14. Before you went to sleep at night?	1	2	3	4

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DIFFICULTY

PLEASE READ BEFORE ANSWERING.

- Please circle the number that indicates how much difficulty you had performing each activity because of your foot problems during the past week.
- For example, when asked how much difficulty your foot problems caused when walking around the house, if you had “No difficulty,” circle the number 1 and if it was ” Severe difficulty,” circle the number 4.
- If, for some items, the question does not apply, circle the number 5.
- Please provide an answer for every item.

2. DURING THE PAST WEEK, HOW MUCH DIFFICULTY DID YOUR FOOT PROBLEMS CAUSE YOU:

	No difficulty	Mild difficulty	Moderate difficulty	Severe difficulty
15. Walking outside on <u>uneven</u> ground?	1	2	3	4
16. Walking four or more blocks?	1	2	3	4
17. Climbing stairs?	1	2	3	4
18. Descending stairs?	1	2	3	4
19. Standing on tip toes?	1	2	3	4
20. When you carried or lifted objects weighing more than five pounds?	1	2	3	4
21. Getting out of a chair?	1	2	3	4

22. Walking fast? 1 2 3 4

Subject ID:

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3. (cont.) DURING THE PAST WEEK, HOW MUCH DIFFICULTY DID YOUR FOOT PROBLEMS CAUSE YOU:

	No difficulty	Mild difficulty	Moderate difficulty	Severe difficulty
23. Running?	1	2	3	4
24. Keeping your balance?	1	2	3	4
25. Walking with assistive devices?	1	2	3	4

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ACTIVITY LIMITATION

PLEASE READ BEFORE ANSWERING.

- Please circle the number that indicates how often you performed each of these activities in the past week because of your feet.
- For example, when asked how often you used a cane indoors because of foot problems, if you used one “None of the time,” circle the number 1 and if you used one “All of the time,” circle the number 4.
- If, for some items, the question does not apply, circle the number 5.
- Please provide an answer for every item.

4. DURING THE PAST WEEK, HOW MUCH OF THE TIME DID YOU:

	None of the time	Some of the time	Most of the time	All of the time	
26. Stay indoors most of the day because of foot problems?	1	2	3	4	
27. Limit your <u>outdoor</u> activities because of foot problems?	1	2	3	4	5= No outdoor activities
28. Limit your leisure/sport activities because of foot problems?	1	2	3	4	5 = Do not play sports

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SOCIAL ISSUES

PLEASE READ BEFORE ANSWERING.

- Please circle the number that indicates how often you experienced the following feelings in the past week because of your feet.
- For example, when asked how often you felt a fear of falling because of foot problems, if you felt fear “None of the time,” circle the number 1 and if you felt fear “All of the time,” circle the number 4.
- If, for some items, the question does not apply, circle the number 5.
- Please provide an answer for every item.

5. DURING THE PAST WEEK, HOW MUCH OF THE TIME DID YOU EXPERIENCE:

	None of the time	Some the time	Most the time	All of the time	
29. Embarrassment due to footwear?	1	2	3	4	
30. Feeling awful because of foot problem?	1	2	3	4	
31. Limit social activities due to foot problems? . .	1	2	3	4	
32. Difficulty participating in social activities due to footwear?	1	2	3	4	_____
33. Burden of taking medication to control foot pain?	1	2	3	4	_____
34. Concern about limited work around the house?.	1	2	3	4	_____

SUBJECT COMMENTS:

Please comment about:

1. Were the directions clear?
2. Were any of the questions difficult to understand?
3. Were any of the questions unclear? If yes, which ones and why?
4. Did any of the questions make you uncomfortable? If yes, which ones and why?
5. Are there any issues about your feet that were not asked or that you would add to the questionnaire? If yes, which issues?
6. Did you have any problems with this questionnaire that you would like to mention? If yes, which problems?

Thank you for participating in this study.

Pain score: _____
Stiffness score: _____
Difficulty score: _____
Activity score: _____
Social score: _____
Cumulative score: _____